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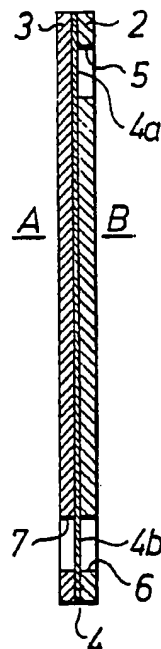
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(54) **Flexible sheet or web materials**

(57) A flexible sheet or web (1) comprises a light polarising security element (4) contained within the thickness of the sheet or web, a region of the security element being exposed at a window (6) at both faces of the sheet or web and optionally at a further window (5) at one face of the sheet or web. Folding the sheet to align the windows produces cross polarisation between the exposed security element regions.

Fig.2



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Fig.1

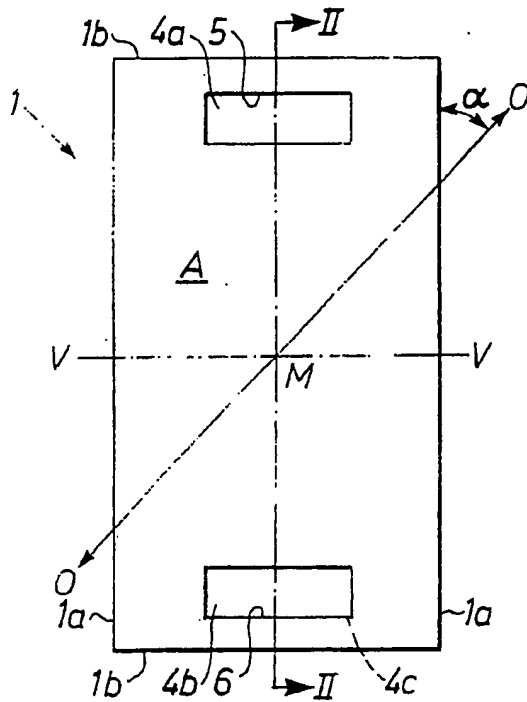


Fig.2

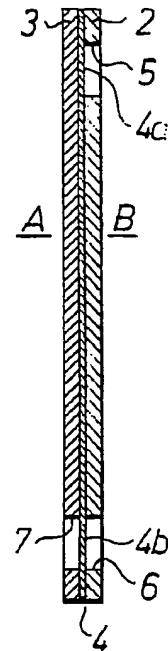


Fig.3

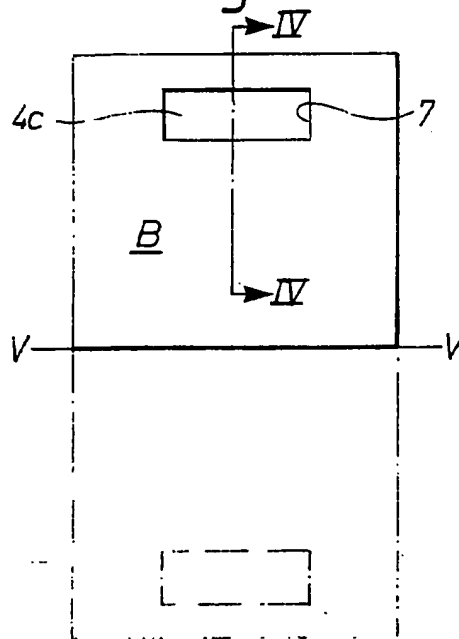


Fig.4

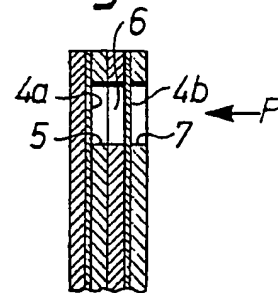


Fig.5

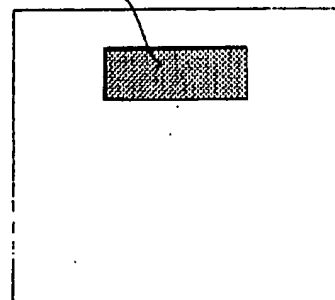


Fig.6

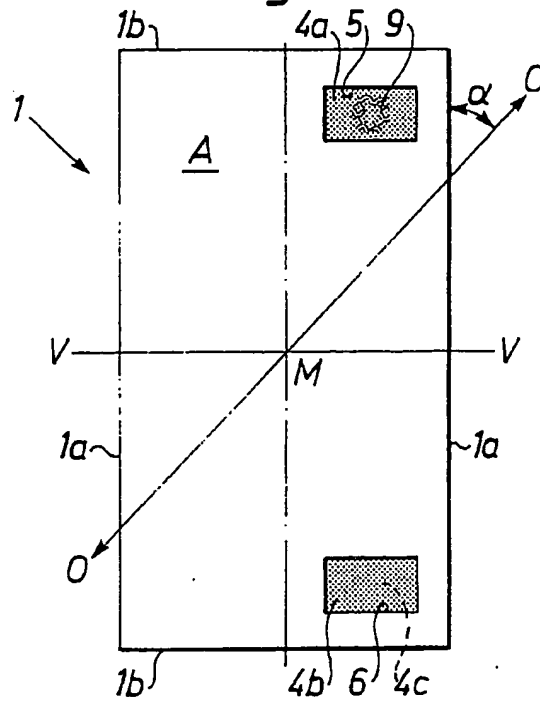


Fig.7

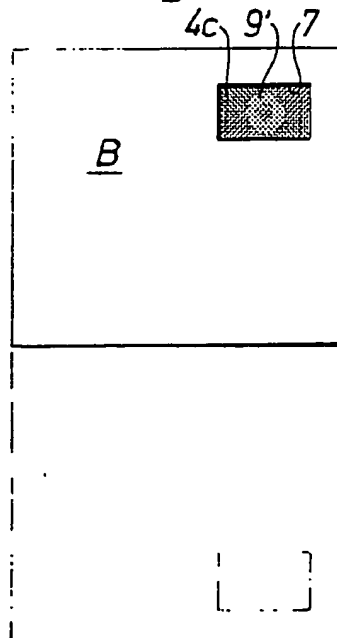


Fig.8

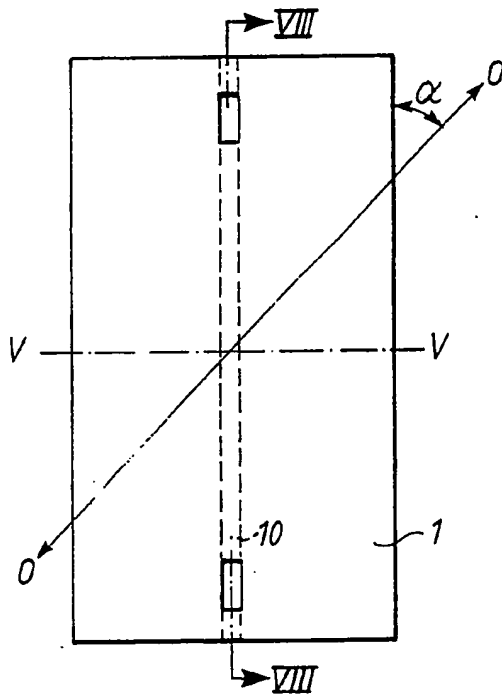


Fig.9

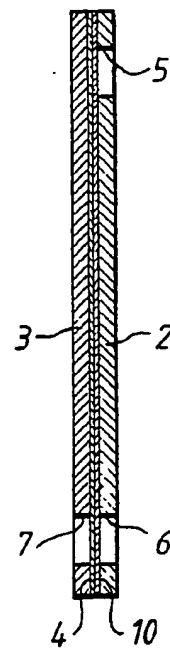
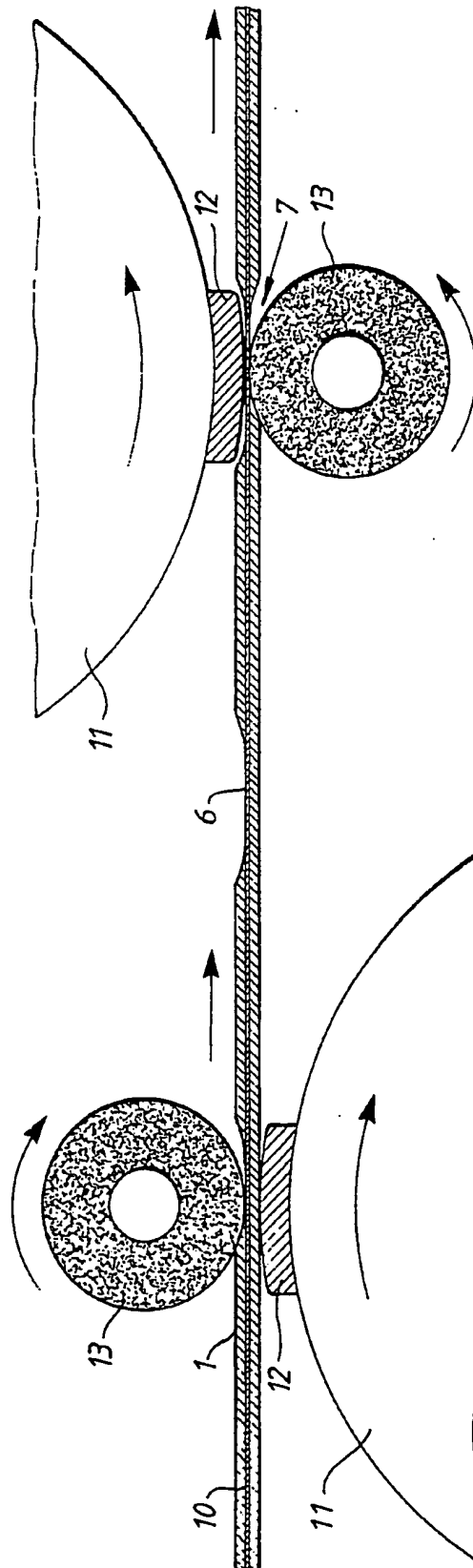


Fig.10



FLEXIBLE SHEET OR WEB MATERIALS

The present invention relates to flexible sheet or weblike materials, and includes in particular valuable documents (e.g. security documents). In preferred embodiments the invention relates to sheet or weblike materials provided with a mark of legitimacy or authenticity which normally is not visible but which can be made visible with the help of external means for checking the authenticity of the material.

It is known that valuable documents, e.g. bank-notes, identity cards, pass-ports etc. can be provided with invisible marks which can be made visible with the help of external means or visible marks which changes in visual character under some externally applied condition. It is known, for example, that on identity documents a marking of legitimacy or of authenticity may be fixed which is of phosphorescent "colour" or material which can be made visible through illumination with UV-light. In such a manner any types of text and markings such as numerical series, names etc. can be introduced. It is an inconvenience of such a check of marking of legitimacy that it requires special auxiliary means in order to make the marking visible, and to carry out a check of legitimacy it is necessary therefore, to have

access to, or to call on, such equipment. It is also known that parts of a document can be magnetized and the documents be provided with a code of legitimacy produced by magnetic means. In this case too access
05 to a relatively complicated apparatus is required in order to establish the presence and significance of the magnetic markings.

Thus there is a clear need for a simpler mark of legitimacy or authenticity which may be detected
10 without the use of special machinery.

The present invention provides a flexible sheet or web comprising a light polarising security element, eg of light-polarising plastics film, contained within the thickness of the sheet or web wherein a region of
15 the security element is exposed in a window at both faces of the sheet or web.

The sheet or web may comprise two material layers laminated to each other by means of a binder layer, which may be said light polarising film.

20 Since the heating involved in lamination will generally destroy the light polarising effect of a plastics film, at least when this is due to the film having been oriented by stretching, care may be needed to ensure that the binder layer film is not heated in
25 the area of said windows. Preferably, one of the material layers has at least two apertures therein

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